Understanding NICE guidance

Information for people who use NHS services

Treating kidney stones with laparoscopic nephrolithotomy and pyelolithotomy

This leaflet is about when and how nephrolithotomy and pyelolithotomy can be used to treat people with kidney stones in the NHS in England, Wales, Scotland and Northern Ireland. It explains guidance (advice) from NICE (the National Institute for Health and Clinical Excellence).

NICE has produced this guidance because the procedures are quite new. This means that there is not a lot of information yet about how well they work, how safe they are and which patients will benefit most from them.

This leaflet is written to help people who have been offered one of these procedures to decide whether to agree (consent) to it or not. It does not describe kidney stones or the procedures in detail – a member of your healthcare team should also give you full information and advice about these. The leaflet includes some questions you may want to ask your doctor to help you reach a decision. Some sources of further information and support are on the back page.

Interventional procedures guidance makes recommendations on the safety of a procedure and how well it works. The guidance does not cover whether or not the NHS should fund a procedure. Decisions about funding are taken by local NHS bodies (primary care trusts and hospital trusts) after considering how well the procedure works and whether it represents value for money for the NHS.
What has NICE said?
These procedures can be offered routinely as a treatment option for people with kidney stones provided that doctors are sure that:

- the patient understands what is involved and agrees to the treatment, and
- the results of the procedures are monitored.

These procedures should only be performed by surgeons trained in advanced laparoscopic surgery. They should be part of a team of specialists experienced in the management of kidney stones.

Other comments from NICE
These procedures are not needed very often because doctors can usually treat kidney stones in other ways.

Laparoscopic nephrolithotomy and pyelolithotomy

The procedures are not described in detail here – please talk your surgeon for a full description.

Kidney stones can form in one or both kidneys. Small stones usually pass out of the kidney in urine without any treatment. Larger stones may need to be broken into smaller pieces so they can be passed out of the body in urine, or they may need to be removed in an operation.

Laparoscopic nephrolithotomy and pyelolithotomy are both carried out under general anaesthesia. The word ‘laparoscopic’ means ‘keyhole’ surgery. The surgeon makes small incisions in the abdomen and uses a fine fibre-optic tube to remove a kidney stone that is too big to pass.

Laparoscopic nephrolithotomy and pyelolithotomy are very similar. In a nephrolithotomy, the surgeon cuts into the kidney to access the kidney stone, and in a pyelolithotomy, the surgeon cuts into the part of the kidney that joins the ureter (the tube that carries urine from the kidney to the bladder).

After the procedure, a tube called a stent may be inserted to help keep the shape of the ureter during healing. The tube may be left in place for several weeks after surgery.

An alternative method of carrying out nephrolithotomy is called ‘percutaneous nephrolithotomy’ or ‘PCNL’. This involves making a small cut in the back through which an instrument is passed directly into the kidney to access the stone. Open abdominal surgery is another method and is sometimes used when PCNL is not available.
What does this mean for me?

NICE has said that these procedures are safe enough and work well enough for use in the NHS. If your doctor thinks that either laparoscopic nephrolithotomy or laparoscopic pyelolithotomy is a suitable treatment option for you, he or she should still make sure you understand the benefits and risks before asking you to agree to it.

You may want to ask the questions below

- Which is the best procedure for me?
- What does the procedure involve?
- What are the benefits I might get?
- How good are my chances of getting those benefits? Could having the procedure make me feel worse?
- Are there alternative procedures?
- What are the risks of the procedure?
- Are the risks minor or serious? How likely are they to happen?
- What care will I need after the operation?
- What happens if something goes wrong?
- What may happen if I don’t have the procedure?

Summary of possible benefits and risks

Some of the benefits and risks seen in the studies considered by NICE are briefly described below. NICE looked at seven studies on these procedures.

How well do the procedures work?

Both laparoscopic procedures have a high success rate, with 88–100% of patients being stone-free for up to 1 year after surgery. The studies that NICE looked at compared laparoscopic pyelolithotomy or laparoscopic nephrolithotomy with percutaneous nephrolithotomy (PCNL). In these studies, laparoscopic procedures had a success rate similar to or better than that of PCNL. In two studies, laparoscopic pyelolithotomy had a 100% success rate.

In three studies comparing laparoscopic pyelolithotomy with PCNL, the average length of time spent in hospital after laparoscopic pyelolithotomy ranged from 4 to 6.5 days. In two of these studies, the average length of time it took for patients to return to normal activities was 13 days after laparoscopic pyelolithotomy. The time spent in hospital was similar for patients who had PCNL, as was the recovery time: neither procedure had a clear advantage over the other in reducing hospital stays.

You might decide to have one of these procedures, to have a different procedure, or not to have a procedure at all.
About NICE

NICE produces guidance (advice) for the NHS about preventing, diagnosing and treating different medical conditions. The guidance is written by independent experts including healthcare professionals and people representing patients and carers. They consider how well an interventional procedure works and how safe it is, and ask the opinions of expert advisers. Staff working in the NHS are expected to follow this guidance.

To find out more about NICE, its work and how it reaches decisions, see www.nice.org.uk/aboutguidance

This leaflet and the full guidance aimed at healthcare professionals are available at www.nice.org.uk/IPG212

You can order printed copies of this leaflet from the NHS Response Line (phone 0870 1555 455 and quote reference N1221).